NPDES PERMIT NO. OK0044920
STATEMENT OF BASIS

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

APPLICANT:

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ISSUING OFFICE:

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DATE PREPARED:

August 1, 2018

PERMIT ACTION:

It is proposed that the facility be issued a first-time National Pollutant Discharge Elimination System (NPDES) permit for a 5-year term in accordance with regulations contained in 40 Code of Federal Regulations (CFR) 122.46(a).

40 CFR CITATIONS: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, current as of August 23, 2018.

RECEIVING WATER – BASIN

Rush Creek and Rounds Creek

DOCUMENT ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

BAT	Best Available Technology Economically Achievable
BOD_5	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
F&WS	United States Fish and Wildlife Service
GPD	Gallon per day
IP	Procedures to Implement the Texas Surface Water Quality Standards
µg/l	Micrograms per liter (one part per billion)
mg/l	Milligrams per liter (one part per million)
MMCFD	Million cubic feet per day
MGD	Million gallons per day
MSGP	Multi-Sector General Permit
NPDES	National Pollutant Discharge Elimination System
MQL	Minimum quantification level
O&G	Oil and grease
RRC	Railroad Commission of Texas
RP	Reasonable potential
SIC	Standard industrial classification
s.u.	Standard units (for parameter pH)
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TDS	Total dissolved solids
TMDL	Total maximum daily load
TOC	Total Organic Carbon
TRC	Total residual chlorine
TSS	Total suspended solids
TSWQS	Texas Surface Water Quality Standards
WET	Whole effluent toxicity
WQMP	Water Quality Management Plan
WQS	Water Quality Standards

I. CHANGES FROM THE PREVIOUS PERMIT

Not applicable since this is a new permit issuance.

II. APPLICANT ACTIVITY

Under the Standard Industrial Classification (SIC) Code 4922, Natural Gas Transmission and SIC Code1623, Pipeline Construction, the applicant proposed Grady Meter Station and lateral Project ("Project") will include the construction and operation of the following new facilities: (1) approximately 1.87 miles of new 24-inch-diameter lateral pipeline ("Grady Lateral") beginning at the Grady Meter Station, and ending at a tie-in within the Mainline at milepost 78.75, and (2) the "Grady Meter Station", a receipt meter which will be located along the Grady Lateral at milepost GR-0, approximately 7 miles south-southwest of the Town of Lindsay in east-central Grady County, Oklahoma. The Project will be located within Grady and Gavin counties, Oklahoma. The Grady Lateral will be hydrostatically tested as one segment, with a maximum of one discharge location. No HDDs will be required along the Grady Lateral. Hydrostatic test water for the Grady Lateral will be sourced from surface water in the Project area, and discharged in an upland location through energy dissipaters and a sediment filter. The Grady Meter Station will be individually hydrostatically tested, with a maximum of one discharge location. Hydrostatic test water for the Grady Meter Station will be obtained from a municipal source, dechlorinated, and discharged in an upland location through energy dissipaters and a sediment filter.

The Grady Lateral will be individually hydrostatically tested. Discharge of hydrostatic test water will consist of a total one-time volume of 233,000 gallons at 1,500 gallons per minute flow rate. The anticipated duration of discharge for this location is less than 1 day. Outfall 001 will be in Garvin County. The receiving water will be an unnamed tributary to Rounds Creek (Water body OK310810020140_00).

The Grady Meter Station will be hydrostatically tested prior to tie-in with the overall Mainline Pipeline system. Discharge of hydrostatic test water will consist of multiple discrete discharge events with a total discharge volume of approximately 3,750 gallons at 1,000 gallons per minute flow rate. All discrete discharge events will occur over a period of approximately 3 months. Outfall 002 will be in Grady County. The receiving water will be an unnamed tributary to Rush Creek (Water body OK310810050010_00).

As described in the application, there are 2 discharge locations. The discharge points showing outfall number, discharge coordinates: latitude and longitude, county, average flow rate in gallons per minute (gpm), receiving water, and the waterbody identification numbers are shown in the Table 1:

TABLE 1: Discharges Description

Outfall Reference Number	Discharge Coordinates Latitude Deg° Min' Sec" Longitude Deg° Min' Sec"	County	Average Flow gpm	Receiving Water	Waterbody ID #
001	34° 45' 12.976" N -97° 39' 55.792" W	Garvin	1,500	Unnamed tributary to Rounds Creek	OK310810020140_00

Outfall Reference Number	Discharge Coordinates Latitude Deg° Min' Sec" Longitude Deg° Min' Sec"	County	Average Flow gpm	Receiving Water	Waterbody ID #
002	34° 44' 59.654" N -97° 41' 51" W	Grady	1,000	Unnamed tributary to Rush Creek	OK310810050010_00

III. EFFLUENT CHARACTERISTICS

Source water samples have been tested for the outfalls 001 and 002. Submitted application in form 2E shown in Tables 2 and 3, respectively:

TABLE 2: Outfall 001

Pollutants	Maximum Daily Mass (lbs)	Maximum Daily Concentration (mg/L)	Average Daily Mass (lbs)	Average Daily Concentration (mg/L)
Biochemical Oxygen Demand (BOD)	N/A	< 30	N/A	< 30
Total Suspended Solids	N/A	< 100	N/A	< 100
Fecal Coliform	N/A	N/A	N/A	N/A
Total Residual Chlorine	N/A	N/A	N/A	N/A
Oil and Grease	N/A	< 15	N/A	< 15
Chemical Oxygen Demand (COD)	N/A	N/A	N/A	
Total Organic Carbon (TOC)	N/A	N/A	N/A	
Ammonia (as N)	N/A	< 3.0	N/A	< 3.0
Discharge Flow	1500 gpm		1500 gpm	
pH	6.0 – 9.0 s.u.		6.0 – 9.0 s.u.	
Temperature (Winter)	14º C		23º C	
Temperature (Summer)	30º C		23º C	

TABLE 3: Outfall 002

Pollutants	Maximum Daily Mass (lbs)	Maximum Daily Concentration (mg/L)	Average Daily Mass (lbs)	Average Daily Concentration (mg/L)
Biochemical Oxygen Demand (BOD)	N/A	< 30	N/A	< 30
Total Suspended Solids	N/A	< 100	N/A	< 100
Fecal Coliform	N/A	N/A	N/A	N/A
Total Residual Chlorine	N/A	2.0	N/A	1.0
Oil and Grease	N/A	< 15	N/A	< 15
Chemical Oxygen Demand (COD)	N/A	N/A	N/A	
Total Organic Carbon (TOC)	N/A	N/A	N/A	
Ammonia (as N)	N/A	< 3.0	N/A	< 3.0
Discharge Flow	1000 gpm		1000 gpm	
pH	6.0 – 9.0 s.u.		6.0 – 9.0 s.u.	
Temperature (Winter)	14º C		23º C	
Temperature (Summer)	30º C		23º C	

IV. STREAM STANDARDS

The general criteria and numerical criteria which make up the stream standards are provided in the Oklahoma Water Quality Standards (Title 785, Chapter 45) promulgated by the Oklahoma Water Resources Board including all amendments which are effective as of September 11, 2017.

V. DISCHARGE DESCRIPTION

This will be a new facility, and no discharge has occurred. Therefore, no effluent data are available. However, the proposed discharges from each outfall are described as follows:

The discharge from Outfalls 001 into receiving waters in Waterbody identification number, OK310810020140_00, Rounds Creek. The designated uses for Water Body Waterbody identification number, OK310810020140_00 are Aesthetic, Agriculture, Warm Water Aquatic community (WWAC), Fish Consumption, and Primary Body Contact Recreation (PBCR).

The discharge from Outfall 002 is into unnamed tributary to Rush Creek (OK310810050010_00). The designated uses for Rush Creek are Aesthetic, Agriculture, Warm Water Aquatic community (WWAC), Fish Consumption, and Primary Body Contact Recreation (PBCR).

VI. TENTATIVE DETERMINATION:

The Environmental Protection Agency (EPA) has made a tentative determination, after consultation with the Oklahoma Department of Environmental Quality, (ODEQ) to issue a first – time permit to the applicant for the activities described.

VII. REGULATORY AUTHORITY/PERMIT ACTION

In November 1972, Congress passed the Federal Water Pollution Control Act establishing the NPDES permit program to control water pollution. These amendments established technology-based or end-of-pipe control mechanisms and an interim goal to achieve "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water"; more commonly known as the "swimmable, fishable" goal. Further amendments in 1977 of the CWA gave EPA the authority to implement pollution control programs such as setting wastewater standards for industry and established the basic structure for regulating pollutants discharges into the waters of the United States. In addition, it made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. Regulations governing the EPA administered the NPDES permit program are generally found at 40 CFR §122 (program requirements & permit conditions), §124 (procedures for decision making), §125 (technology-based standards) and §136 (analytical procedures). Other parts of 40 CFR provide guidance for specific activities and may be used in this document as required.

An NPDES Application for a Permit to Discharge was received on July 26, 2018. It is proposed that the permit be issued for a 5-year term following regulations promulgated at 40 CFR §122.46(a).

VIII. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

A. OVERVIEW OF TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations contained in 40 CFR §122.44 require that NPDES permit limits be developed that meet the more stringent of either technology-based effluent limitation guidelines, numerical and/or narrative water quality standard-based effluent limits, or the previous permit.

Technology-based effluent limitations are established in the proposed draft permit for Oil & Grease (O&G) and total suspended solids (TSS). Water quality-based effluent limitations are established in the proposed draft permit for pH and TRC.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. General Comments

Regulations promulgated at 40 CFR §122.44 (a) require technology-based effluent limitations to be placed in NPDES permits based on ELGs where applicable, on BPJ in the absence of guidelines, or on a combination of the two. In the absence of promulgated guidelines for the discharge, permit conditions may be established using BPJ pursuant to 40 CFR 125.3(c)(2). EPA establishes limitations based on the following technology-based controls: BPT, BCT, and BAT. These levels of treatment are:

BPT - The first level of technology-based standards generally based on the average of the best existing performance facilities within an industrial category or subcategory.

BCT - Technology-based standard for the discharge from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and O&G.

BAT - The most appropriate means available on a national basis for controlling the direct discharge of toxic and non-conventional pollutants to navigable waters. BAT effluent limits represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

2. Effluent Limitations

There are no published ELG's for this type of activity. Permit limits are proposed based on BPJ and consistent with hydrostatic test of newly constructed pipeline. Since hydrostatic test water discharges are batch discharges of short term duration, the draft permit will not propose mass limits. Limits in the draft permit will be expressed in terms of daily maximum concentrations, as allowed by 40 CFR 122.45(e) and (f). Concentration limits will be protective of the stream uses. The proposed limitations for Oil & Grease (O&G) and total suspended solids (TSS) are 45 mg/l maximum and 15 mg/l maximum, respectively.

C. WATER QUALITY BASED LIMITATIONS

1. General Comments

Water quality based requirements are necessary where effluent limits more stringent than technology-based limits are necessary to maintain or achieve federal or state water quality limits. Under Section 301(b)(1)(C) of the CWA, discharges are subject to effluent limitations based on federal or state WQS. Effluent limitations and/or conditions established in the draft permit are in compliance with applicable State WQS and applicable State water quality management plans to assure that surface WQS of the receiving waters are protected and maintained, or attained.

The Clean Water Act in Section 301 (b) requires that effluent limitations for point sources include any limitations necessary to meet water quality standards. Federal regulations found at 40 CFR 122.44(d) state that if a discharge poses the reasonable potential to cause an in-stream excursion above a water quality criterion, the permit must contain an effluent limit for that pollutant. If the discharge poses the reasonable potential to cause an in-stream violation of narrative standards, the permit must contain prohibitions to protect that standard.

The narrative and numerical stream standards are provided in Oklahoma's Water Quality Standards, (OWQS), as amended (OAC 785:45), and implementation criteria contained in OACs 785:46 and 252:690, promulgated by the Oklahoma Water Resources Board (OWRB), effective as of September 11, 2017, and Department of Environmental Quality (DEQ), respectively. This is to ensure that no point-source will be allowed to discharge any wastewater which: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation which threatens human health.

2. Reasonable Potential

EPA develops draft permits to comply with State WQS, and for consistency, attempts to follow OWQS, OWQS implementation criteria in OAC 785:46 and OAC 252:690, and the Continuing Planning Process (CPP) document where appropriate. However, EPA is bound by the State's WQS, not State guidance, including the OWQS implementation, in determining permit decisions. EPA performs its own technical and legal review for permit issuance, to assure compliance with all applicable State and Federal requirements, including State WQS, and makes its determination based on that review.

In the Reasonable Potential (RP) screening process, the 95th percentile effluent concentration, or estimate thereof if the effluent data set is not sufficiently large to determine it directly, is used to compute an instream concentration according to the regulatory mixing zone equations defined in OAC 785:46. The computed instream concentrations are then compared with the applicable criteria to determine whether RP is exhibited. If RP is exhibited, in accordance with 40 CFR 122.44(d)(1)(vi) and OAC 252:690, a waste load allocation and criterion long term average is computed for each applicable criterion. Water quality-based permit limitations are calculated for each pollutant exhibiting RP for all applicable criteria. The most stringent of the resulting monthly average permit limitations is established in the draft permit for each pollutant requiring such limitations.

The applicant proposes to draw water from surface water in the Project area and from a municipal source, dechlorinated, to conduct its hydrostatic test. Hydrostatic test water will contact only new pipe, and no chemicals will be added. As a result, no contaminants are expected to be present in the

hydrostatic test water discharge at amounts that would pose a reasonable potential to exceed State WQS.

Specially, the Grady Lateral will be individually hydrostatically tested. Its hydrostatic test water will be discharged (through energy dissipaters and sediment filter) back into the same water body from which it was taken for the outfall 001. As a result, intake credits are authorized for outfall 001 to account for in situ waterbody conditions for TSS. Intake water credits shall be allowed for the above stated outfall to account for natural water quality under specified conditions. Intake credits shall not be allowed for outfall 002 because the facility plans to obtain water from a municipal water source.

3. Reasonable Potential-Calculations

a. pH

The daily minimum and daily maximum permit limits of 6.0 to 9.0 standard units (s.u.) on hydrostatic test general permits developed by other EPA Regions and States. OAC 785:45-1-12(f)(3) states, "pH values shall be between 6.5 and 9.0 s.u. in waters designated for fish and wildlife propagation; unless pH values outside that range are due to natural conditions." The water quality–based daily minimum pH limit of 6.5 s.u. is more stringent than the technology-based daily minimum pH limit of 6.0 s. u. As a result, the Oklahoma Water Quality Based limits of 6.5 to 9.0 s.u. are established in the proposed permit.

b. Narrative Limitations

1. Aesthetic Standards

According to OWQS, OAC 785:45-5-12(f) (4) which states that narrative protection for aesthetic standards will propose that surface waters shall be maintained so that oil, grease, or related residue will not produce a visible film or globules of grease on the surface or coat the banks or bottoms of the watercourse; or cause toxicity to man, aquatic life, or terrestrial life. A narrative condition prohibiting the discharge of any visible sheen of oil or globules of oil or grease will be included in the proposed permit. In addition, the technology-based limit of 15 mg/l for Oil and Grease should assure that the narrative criterion is maintained.

2. Agriculture/Livestock and Irrigation (OAC 785:45-5-13)

The levels of chloride, sulfate and total dissolved solids in the test water should be the same as in the receiving water. Hydrostatic testing should not result in significant increases in levels of chloride, sulfate or total dissolved solids in the test water above levels contained in the fill water.

3. Primary Body Contact Recreation (OAC 785:45-5-16)

Hydrostatic test wastewater should not contain coliform bacteria, Escherichia coli, and Enterococci at significant levels.

4. Fish and Wildlife Propagation (OAC 785:45-5-12)

Test water being discharged from hydrostatic testing should not contain substances listed in Toxic Substances (785:45-5-12(f)(6)) and Water Column Criteria to protect for the consumption of fish, flesh and water (785:45-5-10(6)) at levels which would have reasonable potential to violate numerical criteria.

5. Primary Body Contact Recreation (OAC 785:45-5-16)

Hydrostatic test wastewater should not contain coliform bacteria, Escherichia coli, and Enterococci at significant levels.

D. TECHNOLOGY BASED VERSUS WATER QUALITY STANDARDS BASED EFFLUENT LIMITATIONS AND CONDITIONS

Following regulations promulgated at 40 CFR122.44(l)(2)(ii), 122.44(d), and 130.32(b)(6), the draft permit limits are based on either technology-based effluent limit pursuant to 40 CFR122.44(a), on the results of or on State Water Quality Standards and requirements pursuant to 40 CFR122.44(d), or on the results of an established and EPA approved Total Maximum Daily Load (TMDL), whichever are more stringent.

Numerical water quality based limitations have been placed in the permit for pH. Narrative standards for oil, grease, or related residue have has been placed in the proposed permit. A technology-based limit of 15 mg/l for Oil and Grease should assure that the narrative criterion is maintained

E. WHOLE EFFLUENT TOXICITY LIMITATIONS

The Grady Meter Station will be hydrostatically tested prior to tie-in with the overall Mainline Pipeline systems. The facility indicates that to chlorinate its hydrostatic test municipal water prior to discharge to Outfall 002, they will add one of the chemicals (i.e., sodium bisulfate, sulfur dioxide, sodium thiosulfate pentahydrate, or Vita-D-Chlor) to the test water or let the test water sit in a frac tank until Total Residual Chlorine permit limits are met. The implementation to protect WQS in Oklahoma from chlorine toxicity is to limit chlorine as “no measurable amount”, defined as less than 33 ug/l instantaneous maximum. For facilities that use chlorine, the limits may be expressed as total residual chlorine (TRC).

There are no chemical specific limitations in the draft permit and the applicant has stated that no chemical additives such as corrosion inhibitors are being added to the test water. There does not appear that the discharge will have a potential for toxicity. The draft permit does not propose any biomonitoring of the test water.

F. FINAL EFFLUENT LIMITATIONS

See the draft permit for limitations.

G. MONITORING FREQUENCY

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity 40 CFR 122.48(b) and to assure compliance with permit limitations 40 CFR 122.44(i)(1). The monitoring frequencies are based on BPJ, taking into account the nature of the discharge.

For ALL outfalls, monitoring for flow, TSS, Oil & Grease, and pH shall be daily by grab sample, when discharging. In addition, Outfall 002 is required to monitor TRC daily by grab sample when discharging.

IX. IMPAIRED WATER - 303(d) LIST AND TMDL

The receiving stream for Outfall 002 is an unnamed tributary of Rush Creek (OK310810050010_00). The State of Oklahoma 2016 303(d) list of impaired waters identifies it is impaired due to fishes bioassessments. There is no developed TMDLs for this waterbody. Therefore, no additional requirements beyond the previously described technology-based or water quality-based effluent limitations and monitoring requirements, are established in the proposed permit. The standard reopener language in the permit allows additional permit conditions if warranted by future developed TMDLs.

X. ANTIDEGRADATION

The Oklahoma Water Quality Standards, Antidegradation, OAC 785:45:3-1, sets forth the requirements to protect designated uses through implementation of the State WQS, OAC 785:46, Subchapter 13. There are no antidegradation restrictions listed in Appendix A of the OWQS for all the receiving waters to which the facility proposes to discharge (see Discharge Description in Section X). As a result, no special requirements beyond Tier 1 protection (maintenance and protection of designated uses, as herein described) are necessary as described in OAC 785:46, Subchapter 13, implementation of the state's antidegradation policy.

The limitations and monitoring requirements set forth in the proposed permit are developed from the State WQS and are protective of those designated uses. Furthermore, the policy sets forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use. The proposed permit requirements are protective of the assimilative capacity of the receiving waters, which is protective of the designated uses of that water.

XI. ANTIBACKSLIDING

The proposed permit is a first-time issuance.

XII. ENDANGERED SPECIES

According to the most recent county listing available at US Fish and Wildlife Service (USFWS), website, https://www.fws.gov/endangered/, 5 species in Grady County and 6 species in Garvin County are listed as Endangered or Threatened. Whooping crane (*Grus americana*), Piping Plover (*Charadrius melodus*), Least tern (*Sterna antillarum*), Red knot (*Calidris canutus rufa*), and Arkansas River shiner (*Notropis girardi*) are the species listed in both Counties, with American burying beetle (*Nicrophorus americanus*) listed in Garvin County. Based on the discussion below, EPA has determined that the issuance of this permit will have no effect on these federally listed threatened or endangered species. EPA, however, is informed that the facility is consulting with the USFWS regarding potential impacts on federally listed species. Therefore, EPA will consider the result of the consultation in the final permit issuance.

PIPING PLOVER (*Charadrius melodus*) -- A small plover has wings approximately 117 mm; tail 51 mm; weight 46-64 g (average 55 g); length averages about 17-18 cm. Inland birds have more complete breast band than Atlantic coast birds. The nonbreeding plovers lose the dark bands. In Laguna Madre, Texas, non-breeding home ranges were larger in winter than in fall or spring. The breeding season begins when the adults reach the breeding grounds in mid- to late-April or in mid-May in northern parts of the range. The adult males arrive earliest, select beach habitats, and defend established territories against other males. When adult females arrive at the breeding grounds several weeks later, the males conduct elaborate courtship rituals including aerial displays of circles and figure eights, whistling song, posturing with spread tail and wings, and rapid drumming of feet. The plovers defend territory during breeding season and at some winter sites. Nesting territory may or may not contain the foraging area. Home range during the breeding season generally is confined to the vicinity of the nest. Plovers are usually found in sandy beaches, especially where scattered grass tufts are present, and sparsely vegetated shores and islands of shallow lakes, ponds, rivers, and impoundments.

Food consists of worms, fly larvae, beetles, crustaceans, mollusks, and other invertebrates. The plovers prefer open shoreline areas, and vegetated beaches are avoided. It also eats various small invertebrates. It obtains food from surface of substrate, or occasionally probes into sand or mud. Destruction of habitat, disturbance and increased predation rates due to elevated predator densities in piping plover habitat are described as the main reasons for this species' endangered status and continue to be the primary threats to its recovery. The remaining populations, whether on the breeding or wintering grounds, mostly inhabit public or undeveloped beaches. These populations are vulnerable to predation and disturbance.

Research of available material finds that the primary cause for the population decreases leading to threatened or endangered status for these species is destruction of habitat. Issuance of the permit will have no effect on this species, since the discharge is not expected to lead to the destruction of habitat.

WHOOPING CRANE (*Grus Americana*) -- The whooping crane occurs only in North America and is North America’s tallest bird, with male approaching 5 feet when standing erect. The whooping crane adult plumage is snowy white except for black primaries, black or grayish alula, sparse black bristly feathers on the carmine crown and malar region, and a dark gray-black wedge-shaped patch on the nape. The common name “whooping crane” probably originated from the loud, single-note vocalization given repeatedly by the birds when they are alarmed. Whooping cranes are a long-lived species; current estimates suggest a maximum longevity in the wild of at least 30 years. Whooping cranes currently exist in the wild at 3 locations and in captivity at 12 sites. The July 2010 total wild population was estimated at 383. There is only one self-sustaining wild population, the Aransas-Wood Buffalo National Park population, which nests in Wood Buffalo National Park and adjacent areas in Canada, and winter in coastal marshes in Texas at Aransas. In addition, there is a small captive-raised, non-migratory population in central Florida, and a small migratory population of individuals introduced beginning in 2001 that migrate between Wisconsin and Florida in an eastern migratory population. The last remaining wild bird in the reintroduced Rocky Mountain Population dies in the spring of 2002.

The whooping crane breeds, migrates, winters, and forages in a variety of habitats, including coastal marshes and estuaries, inland marshes, lakes, ponds, wet meadows and rivers, and

agricultural fields. Historic population declines resulted from habitat destruction, shooting, and displacement by activities of man. Current threats include limited genetics of the population, loss and degradation of migration stopover habitat, construction of additional power lines, degradation of coastal ecosystems, and threat of chemical spills in Texas.

Issuance of this permit is found to have no impact on the habitat of this species, since the discharge is not expected to lead to the destruction of habitat.

LEAST TERN (*Sterna antillarum*) -- The Least tern populations have declined due to habitat destruction by permanent inundation, destruction by reservoir releases, channelization projects, alterations of Natural River or lake dynamics resulting in vegetational succession of potential nesting sites, and recreational use of potential nesting sites. Issuance of this permit is found to have no impact on the habitat of this species, as none of the aforementioned listed activities is authorized by this permitting action.

AMERICAN BURYING BEETLE (*Nicrophorus americanus*) -- American burying beetle is a shiny black with hardened protective covers that meet in a straight line down the back. It has large orange-red marking on the raised portion of the pronotum, a feature shared with no other members of the genus in North America. The American burying beetle also has orange-red frons (a mustache-like feature) and a single orange-red marking on the top of the head (triangular in females and rectangular in males). Antennae are large, with notable orange clubs at the tips. American burying beetle is nocturnal (active at night), lives for only one year, and typically reproduces only once. During the winter months when temperatures are below 60°F (15°C) American burying beetles bury themselves in the soil. When temperatures are above 60°F (15°C) they emerge from the soil and begin the mating and reproduction process.

The American burying beetle has been found in various types of habitat including oak-pine woodlands, open fields, oak-hickory forest, open grasslands, and edge habitat. Research indicates that American burying beetles are feeding habitat generalists. Data is lacking pertaining to American burying beetle reproductive habitat requirements, but species experts assume that they are more restrictive in selecting their reproductive habitat than feeding habitat.

The cause for the decline of this species could be a result of habitat fragmentation, habitat loss, carcass limitation, pesticides, disease, light pollution, or a combination of these factors. Species experts believe the primary causes of decline are habitat loss and fragmentation. Issuance of the permit will have no effect on this species, in that the discharge is not expected to lead to the destruction of habitat.

ARKANSAS RIVER SHINER *(Notropis girardi)* -- Arkansas River Shiner is a small, straw-colored with silvery sides. It has scattered brown flecks which occur on its sides behind the head. The Arkansas River Shiner formerly occurred throughout the Arkansas River main stem and in that river's major right bank tributary basins. The fish is extremely dependent upon flood flows from June through August to successfully spawn. Declining streamflows have now restricted its probable range in Kansas to a few stream reaches within the Lower Arkansas, Salt Fork Arkansas and Cimarron basins. The fish occurs in the upper reaches of the Cimarron River only during high streamflow events.

Arkansas River Shiner is a producer of semi-buoyant eggs, and may be particularly susceptible

to modification of natural flow patterns. The decline of *Notropis girardi* in the upper mainstream Arkansas River could be attributed to anthropogenic reduction of high summer flows apparently needed to stimulate reproduction. Issuance of the permit will have no effect on this species, in that the discharge is not expected to result in reduced stream flows.

RED KNOT *(Calidris canutus rufa)* -- The rufa red knot is a medium-sized shorebird about 9 to 11 inches (in) (23 to 28 centimeters (cm)) in length. The red knot migrates annually between its breeding grounds in the Canadian Arctic and several wintering regions, including the Southeast United States (Southeast), the Northeast Gulf of Mexico, northern Brazil, and Tierra del Fuego at the southern tip of South America. During both the northbound (spring) and southbound (fall) migrations, red knots use key staging and stopover areas to rest and feed. The rufa red knot is threatened due to loss of both breeding and nonbreeding habitat; potential for disruption of natural predator cycles on the breeding grounds; reduced prey availability throughout the nonbreeding range; and increasing frequency and severity of asynchronies (‘‘mismatches’’) in the timing of the birds’ annual migratory cycle relative to favorable food and weather conditions. Issuance of the permit will have no effect on this species, in that the discharge is not expected to lead to the destruction of habitat.

XIII. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The facility is consulting with the Oklahoma State Historic Preservation Office and the Oklahoma Archeological Survey. EPA will consider the result of the consultation in the final permit issuance.

XIV. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if relevant portions of Oklahoma WQS are revised or remanded. In addition, the permit may be reopened and modified during the life of the permit if relevant procedures implementing the WQS are either revised or promulgated. Should the State adopt a new WQS, and/or develop a TMDL, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that approved State standard and/or water quality management plan, in accordance with 40 CFR §122.44(d). Modification of the permit is subject to the provisions of 40 CFR §124.5.

XV. VARIANCE REQUESTS

None

XVI. CERTIFICATION

The permit is in the process of certification by the Oklahoma Department of Environmental Quality following regulations promulgated at 40 CFR 124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service prior to the publication of that notice.

XVII. FINAL DETERMINATION

The public notice describes the procedures for the formulation of final determinations.

XVIII. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION

NPDES Application for Permit to Discharge, Form 1 & 2E, originally submitted July 20, 2018, and received on July 26, 2018.

B. REFERENCES

"Implementation of the Oklahoma Water Quality Standards," Oklahoma Water Resources Board, Title 785, Chapter 46, effective as of September 11, 2017

Oklahoma Water Quality Standards, (Title 785, Chapter 45) promulgated by the Oklahoma Water Resources Board including all amendments which are effective as of September 11, 2017.

Endangered Species: https://www.fws.gov/endangered/

C. 40 CFR CITATIONS

Sections 122, 124, 125, 133, and 136

D. MISCELLANEOUS CORRESPONDENCE

None